KITTY CARDWELL HONORED AT NPDN NATIONAL MEETING
Kitty Snover-Clift, NEPDN Associate Director, Cornell University, Richard Bostock, WPDN Director and Sharon Dobesh, Associate Director, Kansas State University

On March 10, 2016, the NPDN recognized the outstanding service of our members and colleagues at an awards ceremony held on a beautiful evening in our national capitol during the 4th NPDN National Meeting. The ceremony started off with a very special award presented to Kitty Cardwell for all her work getting the National Plant Diagnostic Network (NPDN) established and for serving as the NIFA (formerly known as CSREES) National Program Leader for Plant Pathology since the establishment of the network in 2002.

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The NPDN leadership created the Founder’s Award specifically to thank and honor Kitty for her driving the creation of the NPDN. It was her vision that the network would utilize the source of established, land grant university diagnostic laboratories and diagnosticians, for the protection, security and betterment of agriculture and natural systems in the United States and our territories. Kitty provided strong, unwavering leadership throughout the inception of the network and for all the planning phases through implementation and execution of a cohesive, functioning system. We cannot thank Kitty enough for everything she has done for the NPDN and our members!

Kitty recently retired from USDA but did not leave the field of plant pathology and plant diseases. She has taken on a new role as the Director of the National Institute for Microbial Forensics and Food and Agricultural Biosecurity (NIMFFAB) at Oklahoma State University, assuming her new responsibilities just a few days after the 2016 NPDN National Meeting. We wish Kitty the best in her future endeavors and thank her whole heartedly for everything she has done for the NPDN and our members.

Stay tuned for more highlights from the awards ceremony in the coming months...

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Issue Highlights

- Upcoming NPDN workshops and meetings
- Rotten Tuber awards
- In Regional News: blackleg and tuber soft rot disease reported in Michigan
- Job opportunity at CDFA!
**DIAGNOSTICS**

Sign-up now for upcoming NPDN workshops and meetings
Karen L. Snover-Clift, NEPDN, Cornell University

The NPDN has a number of workshops and meetings this fall. Be sure to contact the meeting organizers or your regional center staff if you are interested in participating in any of these events or if you want to learn more about the content.

**9th IT-Diagnosticians meeting at Purdue University**
September 20–22, 2016

Due to the overwhelmingly positive response and feedback from last year’s NPDN IT-Diagnosticians meeting, CERIS will again host the meeting at Purdue University. Each region will send diagnosticians to attend and there will be IT representation from the Lab Information Management Systems (LIMS) and NPDN National Repository as well. If you want to volunteer to be a participant, please contact your regional center staff. Your regional staff should be able to answer any questions about the meeting but you can also reach out to the hosts, Eileen Luke at lukee@purdue.edu or Mike Hill at mikehill@purdue.edu.

**Primer Design workshop at Oklahoma State University**
October 4–6, 2016

The training will be held the OSU campus in Stillwater, Oklahoma. It will provide, in a very easy and friendly way, access to essential information, concepts and definitions related to nucleic acids and important thermodynamic parameters required for primer design of End Point (standard), real time PCR and isothermal DNA amplification assays, which are required for successful development of PCR based diagnostics worldwide. We have just a few spaces still available. If you are interested in attending, please contact Tricia Allen at tra42@cornell.edu as soon as possible.

**STAR-D Document Round-Up 2 (DRU2) workshop at Cornell University**
November 15–17, 2016

The workshop will provide an opportunity for members to focus on the creation of their STAR-D laboratory documents. Similar to the first workshop, numerous instructors to be present to help answer individual questions during the document creation process. Differing from the first workshop, there are no presentations. The agenda will consist of alternating between specific laboratory document creation and group discussions of questions that arise while working on the documents. If you are interested in attending, please contact Dawn Dailey O’Brien at ddo1@cornell.edu as soon as possible.

Winners of the 2nd Rotten Tuber contest highlighted at the National Meeting
Karen Snover-Clift, NEPDN Associate Director, Cornell University, Richard Bostock, WPDN Director, University of California at Davis and Sharon Dobesh, Associate Director, Kansas State University

On March 10, 2016, the NPDN held an awards banquet as part of the 4th NPDN National Meeting. The awards ceremony concluded with our second rendition of the NPDN Rotten Tuber awards contest. This contest was formed to give a stage to NPDN members and colleagues to showcase those very unique or unusual samples that create stories worth sharing within our community. The award submissions were evaluated based on, 1) the uniqueness of the situation, 2) the story telling ability of the submitter and 3) the shock value.

1st place was presented to Lindsay Patrick for “Mr. Toad hitches a ride”. Lindsay is an Agricultural Technician at the Plant Disease Information Office, Connecticut Agricultural Experiment Station. Here is her submission...

On April 28, 2015 an arborist brought to our office a large root from an apple tree. The root was covered with orange-colored nodules and the tree was in serious decline.
“It’s hollow and decayed on the inside” he said.

Without hesitation, I stuck my face right into the opening at the end of the root, assuming I might find clues as to the cause of the problem. I promptly shrieked and nearly fell off my chair!

A pair of green eyes was staring back at me! Bewildered, the arborist asked me what was wrong.

I rotated the root around to share my findings with him; a very large toad had made himself at home in the hollow root! The arborist left the root with me for further disease analysis, and I brought Mr. Toad outside where he begrudgingly hopped out of his cozy cubby. You never know who or what will hitch a ride to your office on a sample!

2nd place was presented to Sandra Jensen for “samples of feces and urine…not what I signed up for”. Sandra is the diagnostician at the Cornell University, Plant Disease Diagnostic Clinic in Ithaca, NY. Here is her submission…

Case #1

Client: “The trunks of self-sown apple trees caught my attention. The noticeable “white” areas appear to be visible to me only on overcast days. I am including some bark samples and samples of fallen leaves from under the trees.”

Diagnostician observation: The sample consisted of pictures showing a whitish discoloration of the bark of two trees, small pieces of dark outer bark and dead leaves from the ground with a “white substance” on them. The photos suggested lichen growth but no evidence of lichens were found on the bark tissue.

The diagnostic response included the following information:

1.) Lichens appear to be the cause of the “light” coloration on the sides of the trunk, they do not typically harm trees, but they may be an indication that the bark is receiving greater exposure to sunlight.

2.) As for the white substance on the dead leaves, based on the appearance and odor associated with that tissue, we suspect this substance is fecal matter from birds…these trees may simply have been more attractive roosts for some birds…so an excess of fecal material on the foliage below roost trees would not be unusual.

Further communication with the extension agent indicated that we were in agreement as to the suspected “lichen and feces” diagnoses. The agent also indicated that the client was “a very sensitive and private guy - a bit eccentric but very nice.”

Case #2

The Clinic received a sample of branches from an arborvitae reported to have a few lower branches turning black. We found no evidence of a pathogen, but we did note a rather strong ammonia-like odor associated with the tissue. We had observed similar injury due to exposure to excess nitrogen or ammonia. As the damage was only on the lower branches, we suspected marking of trees by dogs.

The client called after receiving his report and was mystified. He had no dog and his entire yard was fenced. We discussed a potential source of nitrogen that may have “somehow” burned the tissue of the lower branches.

I finally explained to the client that “any” urine could do the damage and tried to tactfully ask if anyone might have used his tree as an outdoor toilet—maybe during an outdoor party? The fenced yard would have provided some privacy for
one or more individuals...He had not had any such party!!!
His friends would never do something like that!

I asked if there was anyone else who may have had a party
where some “guests” may not have wanted to walk into the
house to use the facilities. The client thought about it for a
minute and then expressed his feelings with a few very select
curse words and indicated that he would be having a very
long talk with his son!

3rd place was presented to Heather Scheck for “A
fungus grows at the base of a tree”. Heather works
for the Agricultural Commissioner’s Office in Santa
Barbara County, California. Here is her submission...

We are a regulatory agency with a mission
of pesticide use reduction. One way we
accomplish this is by providing pathogen,
weed and insect diagnostic services.

Often we ask that they bring in a sample,
which is difficult for owners of large trees.
This was a case where a resident had lost a
California pepper tree, Schinus molle, and
didn’t know why. She brought in a dead
branch that was not very helpful in making a
diagnosis. But she wrote me this note (right)
about what she had observed in her yard.

I think she nailed it!

An honorable mention award was given to Mary Ann
Hansen for her submission of a video titled “Teaching
Plant Diagnostics”. Mary Ann is a diagnostician from
Virginia Tech University. She submitted a video of a
student that was enrolled in her “Clinic Experience”
graduate course, dissecting a garlic sample that
obviously had become very rotten and very smelly.
The verbal observations of the student attempting
to determine the cause of the diseased sample while
dealing with the overwhelming stench was very funny
to watch...since so many of us have been there! 🌿

REGIONAL NEWS

Blackleg and tuber soft rot
disease reported in some
Michigan potato fields
Noah Rosenzweig, Saltanat Mambetova, Luke Steere,
Robert Schafer, Chris Long, Aaron Yoder and Jan Byrne,
Michigan State University Extension, Department of
Plant, Soil and Microbial Sciences

In the past few weeks blackleg has been found in
several Michigan potato fields. Similar to last year’s
growing season, potato aerial stem rot, blackleg and
tuber soft rot disease continue to be a problem.

Aerial blackleg and tuber soft rot of potato have been
reported in several locations throughout the state.
Tuber soft rot results in rotting tissue that is mushy,
slimy and water-soaked (photo 1). Soft rot of the
potato seed piece can occur following planting and

Photo 1. Tuber infected with Dickeya dianthicola: Rotting tissue is mushy, slimy and water-soaked; infected areas often turn brown or black around the rotting area upon exposure to air.
The disease was not a major issue in the United States until a recent outbreak during the 2015 growing season. During 2015, a wet June resulted in a high incidence of aerial stem rot in parts of Michigan. Blackleg, aerial stem rot and tuber soft rot are caused by either the bacteria *Dickeya* spp. or *Pectobacterium* spp. (formerly classified in the genus *Erwinia*). Potato plants exhibiting blackleg symptoms from different fields were submitted to the Michigan State University Diagnostic Services laboratory for pathogen identification. Biological and culture based approaches, and subsequent DNA analysis by the Potato and Sugarbeet Pathology Laboratory, identified both *Dickeya dianthicola* and *Pectobacterium atrosepticum* in the submitted samples. Confirmed infected varieties were Norwis and Lamoka.

The first step in effective disease management of potato is accurate identification and diagnosis. Effective culture and DNA-based detection methods are available for *Dickeya* and *Pectobacterium*. Visually, *Dickeya* and *Pectobacterium* cause similar symptoms. Because of these similarities, it is recommended that growers send a sample of a plant with a suspected pathogen to a diagnostics lab such as MSU Diagnostic Services for accurate identification.

This article was published online by Michigan State University Extension on July 8, 2016. For more information, visit [http://www.msue.msu.edu](http://www.msue.msu.edu).

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**JOB OPPORTUNITY**

**Associate Plant Pathologist (diagnostician) at California Department of Food and Agriculture**

**final filing date: August 12, 2016**

**Class Code: 1273 — Exam Code: 6FA29**

The Plant Pest Diagnostics Branch of the California Department of Food and Agriculture (CDFA) in Sacramento, California has an opening for an Associate Plant Pathologist (Diagnostician). The Plant Pest Diagnostics Branch serves as a scientific resource, providing timely and accurate plant pest diagnostics for arthropods, nematodes, seeds and plant pathogens as well as professional expertise to our clients. Our clients include other CDFA branches, county agricultural staff, USDA employees, farm advisors, consulting plant pathologists, private and city arborists, CalFire and nursery employees, Master Gardeners and homeowners. Our scientists, technicians and support staff strive to provide leadership in science and excellence in service.

The plant pathology group is looking for a specialist in general diagnostics with an emphasis in bacteriology. Duties include diagnosing diseases primarily caused by bacteria, abiotic diseases and serving as a scientific resource for regulatory decisions. The candidate must be comfortable with DNA sequence analysis, immunoassays, PCR, and laboratory aseptic culture techniques. Experience with next generation sequencing (NGS) is a plus. The candidate will also be required to make decisions that may have significant economic consequences. Minimum qualifications are a Master’s degree in Plant Pathology or closely related field, with a Ph.D. preferred. This is a permanent position through the state of California. Please consult CDFA’s website at [www.cdfa.ca.gov/Employment/](http://www.cdfa.ca.gov/Employment/) for information on how to apply.

The full job description is available at [www.cdfa.ca.gov/employment/pdfs/6FA29.pdf](http://www.cdfa.ca.gov/employment/pdfs/6FA29.pdf).
UPCOMING EVENTS

Meetings

July 30–August 3, 2016
APS Annual meeting
Tampa, FL

July 31–August 4, 2016
National Plant Board 2016 Annual Meeting
Wilmington, DE

September 25–30, 2016
2016 XXV International Congress of Entomology
Orlando, FL

October 24–27, 2016
20th Ornamental Workshop on Diseases and Insects
Hendersonville, NC

CONTRIBUTE

Share Tips and News with Your Colleagues
Recently write an article for a trade journal? Do you have a tip, announcement, regional news or network update you would like to include in the NPDN News? Email Rachel McCarthy at rachel.mccarthy@cornell.edu

PHOTO OF THE MONTH

Siberian silk moth (*Dendrolimus sibiricus*) eggs on larch.

John Ghent, US-FS, Bugwood.org

www.bugwood.org

CONNECT

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